

Abstract of the Disclosure

A multi-format digital video production system enables a user to process an input video program to produce an output version of the program in a final format which may have a different frame rate, pixel dimensions, aspect ratio, or any combination thereof. An 5 internal production format of 24 fps is preferably chosen to provide the greatest compatibility with existing and planned formats associated with HDTV standard 4:3 or widescreen 16:9 high-definition television, and film. Images are re-sized horizontally and vertically by pixel interpolation, thereby producing larger or smaller image dimensions so as to fill the particular needs of individual applications. Frame rates are adapted by inter-frame 10 interpolation or by traditional schemes, including "3:2 pull-down" for 24-to-30 fps conversions. Simple speed-up (for 24-to-25 conversions) or slow-down (for 25-to-24 conversions) for playback, or by manipulating the frame rate itself using a program storage facility with asynchronous reading and writing capabilities. The step of converting the signal to a HDTV format is preferably performed using a higher sampling clock frequency and a 15 resizing to HDTV format frame dimensions in pixels. An integrated system having digital television standard conversion capabilities is disclosed, wherein audio/video input signals are received in high-speed serialized form, transferred to a high-speed data bus, and fed to one or more standards converters operating according to the invention, thereby providing a variety of serial or parallel digital signal outputs. The system may further include a wide-/local-area 20 network interface, mass storage, digital effects unit and workstations for multiple users.